

What is claimed is:

1. A display device comprising:

a front substrate forming an anode and phosphors on an
5 inner surface thereon;

a back substrate which forms a plurality of cathode lines
which extend in one direction and are juxtaposed in another
direction which crosses the one direction and have electron
sources, and a plurality of control electrodes which cross the
10 cathode lines in a non-contact manner within a display region,
extend in the another direction, are juxtaposed in the one
direction, and have electron passing apertures which allow
electrons from the electron sources to pass therethrough to the
front substrate side, on an inner surface thereof, the back
15 substrate being arranged to face the front substrate in an opposed
manner with a given distance therebetween; and

distance holding members being sandwiched between the
front substrate and the back substrate in an erected manner and
holding a distance between the front substrate and the back
20 substrate at a given distance; wherein

a buffering/fixing material is provided between at least
one of the front substrate and the back substrate and the distance
holding members, and the buffering/fixing material is formed
by mixing an adhesive to a highly resilient material which
25 dissipates in a baking step.

2. A display device according to claim 1, wherein the control electrodes are constituted of plate-members which are formed by arranging a plurality of strip-like electrode elements in parallel.

5 3. A display device according to claim 2, wherein the display device includes an outer frame which is interposed between the front substrate and the back substrate such that the outer frame surrounds the display region to hold the given distance, and

10 the display device further includes electrode pressing members which fix both end regions of the strip-like electrode elements which constitute the control electrodes to the back substrate outside the display region and the inside the outer frame.

15 4. A display device according to claim 1, wherein the highly resilient material is low-temperature decomposing foamed resin.

5. A display device according to claim 4, wherein urethane is used as the low-temperature decomposing foamed resin.

6. A display device according to claim 1, wherein a low 20 melting-point glass is used as the adhesive.

7. A display device comprising:

 a front substrate forming an anode and phosphors on an inner surface thereon;

 a back substrate which forms a plurality of cathode lines 25 which extend in one direction and are juxtaposed in another

direction which crosses the above-mentioned one direction and have electron sources, and a plurality of control electrodes which cross the cathode lines in a non-contact manner within a display region, extend in the above-mentioned another direction, 5 are juxtaposed in the above-mentioned one direction, and have electron passing apertures which allow electrons from the electron sources to pass therethrough toward the front substrate side, on an inner surface thereof, the back substrate being arranged to face the front substrate in an opposed manner with 10 a given distance therebetween; and

distance holding members being sandwiched between the front substrate and the back substrate in an erected manner and holding a distance between the front substrate and the back substrate to a given distance; wherein

15 buffering/fixing material is provided between at least one of the front substrate and the back substrate and the distance holding members, and the buffering/fixing material is formed by mixing an adhesive to a highly resilient material which is present after a baking step.

20 8. A display device according to claim 7, wherein the control electrodes are constituted of plate-members which are formed by arranging a plurality of strip-like electrode elements in parallel.

25 9. A display device according to claim 8, wherein the display device includes an outer frame which is interposed

between the front substrate and the back substrate such that the outer frame surrounds the display region to hold the given distance, and

the display device further includes electrode pressing
5 members which fix both end regions of the strip-like electrode elements which constitute the control electrodes to the back substrate outside the display region and the inside the outer frame.

10. A display device according to claim 7, wherein the
10 highly resilient material is heat-resistant fibers.

11. A display device according to claim 10, wherein the heat-resistant fibers are aramid-based fibers.

12. A display device according to claim 7, wherein the adhesive is a low melting-point glass.